

Appl. No. 10/054,623
Reply to Office action of November 13, 2004
Docket. No.: 2102299-991110

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REMARKS

Applicants appreciate the thorough examination of the application that is reflected in the Office Action dated November 18, 2004. Applicants amend claims 1, 2, 6, 7, 9-11, 13, 15-17 and 19, and cancel claim 5 and 23 without prejudice or disclaimer. After entry of the foregoing amendments, claims 1-4, 6-22 and 24-26 (24 total claims; 4 independent claims) remain pending in the application. Applicants respectfully request reexamination and reconsideration of the application.

Oath/Declaration

Applicants note the objection and will submit a new oath or declaration which complies with 37 CFR 1.67(a) and MPEP §§ 602.01 and 602.02.

Objections to Abstract

Applicants amend the Abstract to remove the reference numerals so that it complies with MPEP 608.01(b). Accordingly, this objection is now moot.

Objections to Specification

Applicants amend page 5, line 11 of the Specification to include the serial number of the referenced U.S. patent application. Accordingly, this objection is now moot.

Art-Based Rejections

Claims 1-12 and 19-26

The Official Action rejects claims 1-12 and 19-26 under 35 U.S.C. 102(b) as being anticipated by Flores (U.S. 5,630,069).

Applicants respectfully traverse this rejection for at least the following reasons.

Independent Claim 1

To expedite prosecution of this Application, Applicants amend claim 1 to further distinguish over the Flores reference by including limitations from claim 5. Amended claim 1 relates to a system for visually building multi-channel applications. The system comprises:

a first module adapted to allow a developer to visually design workflow for a multi-channel application;

a second module adapted to allow a developer to design views for said multi-channel application; and

a third module adapted to allow a developer to integrate data sources within said multi-channel application. (Emphasis added.)

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Applicants submit that the cited Flores reference fails to teach or suggest, for example, “a multi-channel application,” as required by claim 1. Paragraph [0007] of the present application defines an example of a multi-channel application as “an application that can be accessed via two or more channels, including but not limited to wireline access by web browser, wireless access by internet-enabled phone, wireless access by PDA (Personal Digital Assistant), and voice access by telephone.” In rejecting claim 5, the Office Action cites column 4:22-27 of the Flores reference as allegedly teaching the “multi-channel application,” recitation. However, column 4:22-27 of the Flores reference merely discusses that:

“The workflow server is the heart of a workflow system. The workflow system concentrates workflow operations in the workflow server rather than in the end user applications. By using this client/server design, applications do not need to have the intelligence about workflows as part of their design.” (Flores at column 4:22-27; emphasis added.)

Thus, while the Flores reference describes a workflow server in which workflow operations are concentrated, the Flores reference fails to suggest the concept of a multi-channel application, as required by claim 1, since Flores does not suggest the concept of an application that can be accessed via two or more channels.

In addition, Applicants submit that the Flores reference fails teach, for example, “a third module adapted to allow a developer to integrate data sources within said multi-channel application,” as required by claim 1. Paragraph [0136] of the present application describes one example of “data sources.” In rejecting claim 1, the Office Action cites column 5: 9-12 of Flores as allegedly teaching “a third module adapted to allow a developer to integrate data sources within said application.” However, column 5: 9-12 of the Flores reference merely discusses that:

“A workflow-enabled application interfaces to the server via the transactions database of the workflow server or via APIs, or via messaging, database, or inter-process communications (IPCs) or through the use of an STF processor.” (Flores at column 5: 9-12; emphasis added)

Applicants submit that nothing in this portion of the Flores reference would teach or suggest, for example, “a third module adapted to allow a developer to integrate data sources

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within said multi-channel application," as required by claim 1. Rather, Flores reference merely establishes that an application interfaces to a server via a database, and does not suggest that a data source or data sources can be integrated within an application.

Accordingly, for at least the foregoing reasons, Applicants submit that claim 1, and its dependent claims 2-4 and 6, are patentable over the Flores reference. In addition, Applicants submit that many of the dependent claims are separately patentable since the Flores reference fails to teach recitations present in those claims.

Dependent claim 2 requires "an interactive development environment for allowing a developer to interact with said first, second and third modules to design said multi-channel application." Dependent claims 2 was also rejected based on column 14, lines 33-41 of the Flores reference. Column 14: 33-41 of the Flores reference discusses that:

In a preferred embodiment, the software used to implement the workflow analyst application (Analyst) design is based on the Model-View-Controller (MVC) paradigm of object oriented programming. The MVC paradigm divides an application into three main divisions: Model which represents the core application logic, View which represents the user interface logic, and Controller which represents the message and event handling logic that implements the tools for manipulation of objects. (Flores at column 14: 33-41.)

Thus, the Flores reference discloses that the general concept of a Model-View-Controller (MVC) paradigm is known. Applicants submit that dependent claim 2 is patentable for at least the same reasons discussed above with respect to claim 1. In addition, Applicants submit that the Flores reference fails to teach "an interactive development environment for allowing a developer to interact with said first, second and third modules to design said multi-channel application," as required by claim 2. Figure 27 of the present application shows one non-limiting example of an MVC architecture used to accomplish this interaction between modules. Applicants submit that nothing in the Flores reference suggests that a conventional Model-View-Controller (MVC) paradigm, such as that shown in Figure 26 of the present application, should be changed to allow a developer to interact with said first, second and third modules.

Dependent claim 4 requires the "system is adapted to allow a developer to design multi-modal applications." Paragraph [0008] of the present application defines an example of a multi-modal application as "an application that can be operated via two or more modes,

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including but not limited to real-time, disconnected, and asynchronous access.” The Office Action rejects dependent claim 4 based on column 3: 56-67 of the Flores reference. Column 3:56-67 of the Flores reference discusses that:

A workflow can be linked (and initiate) multiple workflows from one of its phases. If all the workflows start at the same moment, the multiple workflows are said to have started in parallel. Multiple workflows can also be started serially. There are two mechanisms to indicate the serialization of workflows. As illustrated in FIG. 2, workflows serial 1 and serial 2 are sequential workflows. The primary workflow at the beginning of the agreement phase, has a link to start workflow serial 1. Workflow serial 2 is linked from the satisfaction phase of workflow serial 1. Upon satisfaction of workflow serial 2, there is a link back to the primary workflow. (Flores at column 3: 56-67; emphasis added.)

The Flores reference simply suggests that a workflow can be linked (and initiate) multiple workflows from one of its phases. However, nothing in the Flores reference teaches that an application has two or modes of operation. As such, the Flores reference fails to teach the concept of a multi-mode application. Thus, Applicants submit that the cited section of Flores fails to teach at least the above-underlined recitations of claim 4. Accordingly, Applicants submit that dependent claim 4 is also separately patentable.

The Office Action also rejects claim 6 based upon column 4:22-27 of the Flores reference which is reproduced above. Dependent claim 6 requires that the “system is adapted to allow a developer to design multi-channel applications including at least two channels selected from the group comprising voice channels, web channels, and wireless web channels.” Although the Flores reference describes a workflow server in which workflow operations are concentrated, the Flores reference fails to suggest the concept of a multi-channel application, much less that multi-channel applications include “at least two channels selected from the group comprising voice channels, web channels, and wireless web channels,” as required by claim 6. For at least the reasons stated above, Applicants submit that the Flores reference fails to teach the above recitations of claim 6. Accordingly, for at least the foregoing reasons, Applicants submit that claim 6 is also separately patentable over the Flores reference.

Independent Claim 7

Applicants amend claim 7 to correct a typographical error so that the preamble and body of claim 7 is consistent throughout with reference to the multi-channel application. Applicants

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submit that this amendment to claim 7 does not change the scope of claim 7. Amended independent claim 7 relates to a system for visually building multi-channel applications. Claim 7 requires:

an interactive development environment for visually designing workflow for a multi-channel application,
said environment being adapted to allow a developer to independently design said workflow in a plurality of layers,
each of said layers corresponding to at least one channel of said multi-channel application. (Emphasis added.)

Independent claim 7 requires “an interactive development environment for visually designing workflow for a multi-channel application.” For at least the reasons stated above with respect to claim 1, Applicants submit that the Flores reference fails to teach this recitation of claim 7. Accordingly, for at least the foregoing reasons, Applicants submit that claim 7, and its dependent claims 8-12, are patentable over the Flores reference.

In addition, Applicants submit that the Flores reference also fails to teach an “environment being adapted to allow a developer to independently design said workflow in a plurality of layers, each of said layers corresponding to at least one channel of said multi-channel application” as required by claim 7. The present application gives one example of a channel at paragraph [0130]. In an attempt to establish this limitation in the Flores reference, the Office Action cites column 3:56-67 and column 14: 33-41 of the Flores reference which are reproduced above.

These portions of the Flores reference disclose that a workflow can be linked to multiple workflows from one of its phases, and that a Model-View-Controller (MVC) paradigm is known. However, Applicants submit that nothing in this portion of the Flores reference would teach, for example, an “environment being adapted to allow a developer to independently design said workflow in a plurality of layers, each of said layers corresponding to at least one channel of said multi-channel application” as required by claim 7. The sections of the Flores reference fail to teach that layers correspond to at least one channel. Accordingly, for at least the foregoing reasons, Applicants submit that claim 7, and its dependent claims 8-12, are patentable over the Flores reference.

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In addition, Applicants submit that many of the dependent claims are separately patentable since they include limitations not taught by the Flores reference.

For example, dependent claim 8 was also rejected based on column 14, lines 33-41 of the Flores reference which is reproduced above. Dependent claim 8 requires “said interactive development environment provides a graphical interface for independently displaying and designing said plurality of layers.” Applicant submits that dependent claim 8 is patentable at least the same reasons discussed above with respect to claim 7, and is separately patentable since the Flores reference fails to teach that a graphical interface for “independently displaying and designing said plurality of layers,” as required by claim 8.

The Office Action also rejects dependent claims 9, 10, 11, 12 based on column 3: 56-67 of the Flores reference which is reproduced above. Dependent claim 9 requires that the “interface is adapted to independently display a root layer including states common to each of said channels of said multi-channel application, and to allow a developer to visually design said root layer.” Dependent claim 10 requires that the “interface is further adapted to independently display a voice layer including states common to a voice channel of said multi-channel application, and to allow a developer to visually design said voice layer.” Dependent claim 11 requires that the “interface is further adapted to independently display a visual layer including states common to a visual channel of said multi-channel application, and to allow a developer to visually design said visual layer.” Dependent claim 12 requires that the “interface is further adapted to display combinations of said root, voice and visual layers.” Again, this section of the Flores reference merely discloses that a workflow can be linked to multiple workflows from one of its phases. Applicants submit that the cited section of Flores fails to teach at least the above-underlined recitations of claims 9- 12. Accordingly, Applicants submit that dependent claims 9- 12 are also separately patentable.

Independent claim 19

Applicants amend independent claim 19 to include the limitations from dependent claim 23. Applicants submit that the cited Flores reference fails to teach, for example, that the “application workflow describes a multi-channel application,” or “converting said application workflow into an application descriptor for delivering the application over multiple channels,” as required by claim 19. In rejecting claim 19, the Office Action cites column 14: 33-41 of the Flores reference (reproduced above) as allegedly teaching this recitation. However, column 14:

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33-41 of the Flores reference merely discusses the Model-View-Controller (MVC) paradigm of object oriented programming. Applicants submit that nothing in this portion of the Flores reference would teach or suggest, for example, that the “application workflow describes a multi-channel application,” or the step of “converting said application workflow into an application descriptor for delivering the applications over multiple channels,” as required by claim 19. Accordingly, for at least the foregoing reasons, Applicants submit that claim 19, and its dependent claims 20-26, are patentable over the Flores reference.

In addition, Applicants submit that many of the claims dependent on 19 are separately patentable. For example, the Office Action also rejects claim 21 based upon column 5:41-45 of the Flores reference, which states that “The workflow reporter is a GUI application that provides an interface to the transaction databases of the system. It allows the observation of the status of current transactions as well as the history and performance of past transactions.” (Emphasis added.) Dependent claim 21 requires “internationalizing said presentation of said application within said visual development environment.” One example of internationalization is described at paragraph [0142] of the present application which states that internationalization “is the process of designing an application so that it can be adapted to various locales.” Other examples of internationalization are described in Section VIII of the present application at paragraph [0442] – [0474]. Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claim 21. Accordingly, for at least the foregoing reasons, Applicants submit that claim 21 is separately patentable over the Flores reference.

Dependent claim 22 requires “integrating data sources into said application by use of said visual development environment.” Dependent claim 23 requires “application workflow describes a multi-channel application.” The Office Action also rejects claim 22 based upon column 5: 9-12 of the Flores reference and rejects claim 23 based upon column 4:22-27 of the Flores reference. For at least the reasons stated above with respect to claim 1, Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claims 22 and 23. Accordingly, for at least the foregoing reasons, Applicants submit that claims 22 and 23 are also patentable over the Flores reference.

In addition, dependent claim 24 requires “application workflow is designed in a plurality of layers, each layer including states and transitions common to at least one channel of said application.” For at least the reasons noted with respect to claim 7, Applicants submit that

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the Flores reference fails to teach the above recitations of claim 24. In addition, Applicants submit that the Flores reference fails to teach “each layer including states and transitions common to at least one channel of said application,” as required by claim 24. Accordingly, for at least the foregoing reasons, Applicants submit that claim 24 is separately patentable over the Flores reference.

Dependent claim 25 requires “componentizing a plurality of said states and transitions into a reusable sub-model within said visual development environment.” Dependent claim 26 requires “packaging said application workflow into a reusable component within said visual development environment.” The Office Action rejects claims 25 and 26 based upon column 4:53-57 of the Flores reference, which states that the “definitions database contains records that define each type of business process and workflow in the system. These records are used by the workflow updater and workflow processor to determine new workflow states and available actions.” Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claims 25 and 26. Accordingly, for at least the foregoing reasons, Applicants submit that claims 25 and 26 are separately patentable over the Flores reference.

Independent Claim 13

The Office Action rejects claims 13-18 under 35 U.S.C. 103(a) as being unpatentable over Flores (U.S. 5,630,069) in view of Ambler (U.S. 6,393,456).

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants’ disclosure. Applicants respectfully submit that the Examiner has not met all of the above criteria.

For at least the reasons discussed above with respect to claim 1, Applicants submit that the cited references fail to teach or suggest “a workflow for a multi-channel application,” as required by claim 13. In rejecting claim 13, the Office cites column 5: 35-40 and column 7:10-30 of the Flores reference as allegedly teaching this recitation. Column 5: 35-40 of the Flores reference discusses that:

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The workflow analyst, which is the invention described herein, is a GUI application that allows a business process analyst to specify the map of business processes with its network of workflows. Its output is readable by the application builder which will update the definitions database of the server. (Flores reference at column 5: 35-40; emphasis added.)

Column 7:10-30 of the Flores reference discusses that:

The invention utilizes a graphical user interface in a computer system which incorporates a graphical user interface (GUI) such as the Microsoft Windows (Win3.1+) environment, using MDI and Windows HELP facility.

The invention produces standard workflow maps of business processes that show workflows and the links defined between workflows.

Thus, the Flores reference discloses a GUI and standard workflow maps of business processes that show workflows and the links defined between workflows. Applicants submit that the cited references fail to teach or suggest "a workflow for a multi-channel application," as required by claim 13.

Applicants agree with the Office Action that the Flores reference fails to teach "a module for converting said visually built workflow into a markup language," as required by claim 13. In rejecting claim 13, page 10 of the Office Action asserts that column 8:43-46 of the Ambler reference "teaches a module for converting said visually built workflow into a markup language (column 8, lines 43-46)." The Office then concludes that:

"It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the system disclosed by Flores to include a module for converting said visually built workflow into a markup language using the teaching of Ambler. The modification would have been obvious because one of ordinary skill in the art would be motivated to use a standard language that allows greater flexibility."

Applicants respectfully submit that although the Ambler reference discloses that the general concept of a markup language is known, nothing in the Ambler reference would suggest "converting said visually built workflow into a markup language," as required by claim 13. Applicants submit that the Flores reference also fails to teach or suggest this limitation. For at least the foregoing reason, Applicants submit that the cited references fail to teach or suggest

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these recitations of claim 13. Accordingly, for at least the foregoing reasons, Applicants submit that claim 13, and its dependent claims 14-18, are patentable over the cited references.

In addition, Applicants submit that many of the dependent claims are separately patentable. For example, the Office Action rejects claim 15 based upon column 3: 56-67 and 14:33-41 of the Flores reference, which are reproduced above. Dependent claim 15 requires “said graphical user interface is adapted to allow a user to visually build a single workflow for a multi-channel application capable of operating over a plurality of channels.” Dependent claim 17 requires “a second graphical user interface adapted to allow a developer to build views of a multi-channel application.” Applicant submits that dependent claims 15 and 17 are separately patentable for at least the same reasons discussed above with respect to claim 1.

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Conclusion

In conclusion, for the reasons given above, all claims now presently in the application are believed allowable. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

Dated: February 18, 2005

By: 
Erin P. Madill
Reg. No. 46,893
(480) 385-5060